

TRIANGLE RENDERING USING DIRECT EVALUATION

ABSTRACT

This disclosure describes an apparatus, such as a wireless communication device, that applies a direct evaluation technique to render triangles for the 3D graphical environment. The apparatus includes a rendering engine that defines a rectangular area of pixels, referred to as a bounding box, that bounds the area to be rendered. The rendering engine evaluates coordinates associated with the pixels of the rectangular area to selectively render those pixels that fall within the triangular area. The direct evaluation triangle rendering algorithm may require fewer complex operations than the more computationally intensive interpolation process employed by other systems. As a result, the apparatus may present a 3D graphical environment while preserving as much as possible the available power.